## DATASHEET - MSC-D-25-M25(24VDC)/BBA



Part no.

Catalog No.

Alternate Catalog XTSC025B025CTDNL-A

**EL-Nummer** (Norway)

4315440

DOL starter, 380 V 400 V 415 V: 11 kW, Ir= 20 - 25 A, 24 V DC, DC voltage Powering Business Worldwide MSC-D-25-M25(24VDC)/BBA 102979

asic function			DOL starters (complete devices)
asic device			MSC
asic device			IE3 ✓
lotes			Also suitable for motors with efficiency class IE3. IE3-ready devices are identified by the logo on their packaging.
onnection to SmartWire-DT			no
Motor ratings			
Motor rating			
AC-3			
380 V 400 V 415 V	P	kW	11
Rated operational current			
AC-3			
380 V 400 V 415 V	I <sub>e</sub>	Α	21.7
Rated short-circuit current 380 - 415 V	Iq	kA	50
Setting range			
Setting range of overload releases	I <sub>r</sub>	Α	20 - 25
Coordination			Type of coordination "1" Type of coordination "2"
Contact sequence			M 3~
actuating voltage			24 V DC
			DC voltage
			Do voitage

03/15/2020

Notes

Mechanical connection element and electrical electric contact module PKZM0-XM32DE

BK25/3-PKZ0-E extension terminal and if necessary B3.../...-PKZ0 three-phase commoning link can be added to motor-starter combinations to make Type F starters in accordance with UL508.

#### Notes

The DOL starters (complete units) consist of a PKZM0 motor protective circuit breaker and a DILM contactor. These combinations are mounted on the busbar adapters.

The connection of the main circuit between the motor protective circuit breaker and the contactor is established with an electrical contact module.

Cannot be combined with NHI-E-...-PKZ0-C standard auxiliary contact with spring-cage terminal.

Further information Technical data PKZM0 Accessories PKZ Technical data DILM Accessories DILM Page

→ PKZM0

→ 072896

→ DILM

→ 281199

## **Technical data**

#### **General**

Standards			UL 508 (on request) CSA C 22.2 No. 14 (on request)
Altitude		m	Max. 2000
Ambient temperature			-25 - +55
Main conducting paths			
Rated impulse withstand voltage	$U_{imp}$	V AC	6000
Overvoltage category/pollution degree			III/3
Rated operational voltage	U <sub>e</sub>	V	230 - 415
Rated operational current			
Open, 3-pole: 50 – 60 Hz			
380 V 400 V	I <sub>e</sub>	Α	25
Additional tachnical data			

#### **Additional technical data**

Motor protective circuit breaker PKZM0, PKE	PKZM0 motor-protective circuit-breakers, see motor-protective circuit-breakers/ PKZM0 product group DILM contactors, see contactor product group DILET timing relay, ETR, see contactors, electronic timing relays product group
Power consumption	

#### **.**

DC operated	Sealing	W	0.5
Date to the terminal transfer of the terminal			

### **Rating data for approved types**

Auxiliary contacts		
Pilot Duty		
AC operated		A600
DC operated		P300
General Use		
AC	V	600
AC	Α	15
DC	V	250
DC	Α	1
Short Circuit Current Rating	SCCR	
Basic Rating		
SCCR	kA	5
max. Fuse	Α	1
max. CB	Α	15

## Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	$I_n$	Α	25
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	5
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	15
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0.9
Heat dissipation capacity	P <sub>diss</sub>	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	55
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.

10.2.3.1 Verification of thermal stability of enclosures	Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat	Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects	Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation	Meets the product standard's requirements.
10.2.5 Lifting	Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact	Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions	Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES	Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances	Meets the product standard's requirements.
10.5 Protection against electric shock	Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components	Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections	Is the panel builder's responsibility.
10.8 Connections for external conductors	Is the panel builder's responsibility.
10.9 Insulation properties	
10.9.2 Power-frequency electric strength	Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage	Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material	Is the panel builder's responsibility.
10.10 Temperature rise	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

### **Technical data ETIM 7.0**

Low-voltage industrial components (EG000017) / Motor starter/Motor starter combination (EC001037)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Load breakout, motor breakout / Motor starter combination (ecl@ss10.0.1-27-37-09-05 [AJZ718013])

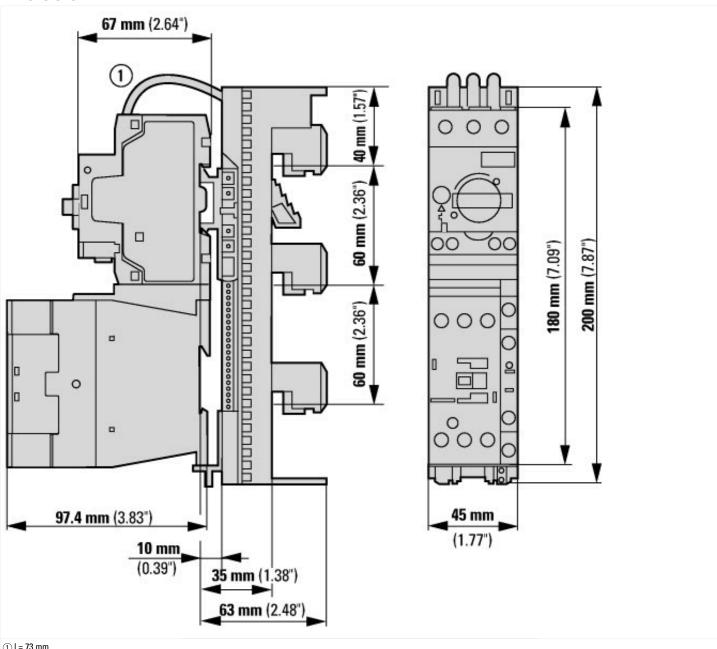
Kind of motor starter		Direct starter
With short-circuit release		Yes
Rated control supply voltage Us at AC 50HZ	V	0 - 0
Rated control supply voltage Us at AC 60HZ	V	0 - 0
Rated control supply voltage Us at DC	V	24 - 24
Voltage type for actuating		DC
Rated operation power at AC-3, 230 V, 3-phase	kW	5.5
Rated operation power at AC-3, 400 V	kW	11
Rated power, 460 V, 60 Hz, 3-phase	kW	0
Rated power, 575 V, 60 Hz, 3-phase	kW	0
Rated operation current le	А	21.7
Rated operation current at AC-3, 400 V	А	25
Overload release current setting	А	20 - 25
Rated conditional short-circuit current, type 1, 480 Y/277 V	А	0
Rated conditional short-circuit current, type 1, 600 Y/347 V	А	0
Rated conditional short-circuit current, type 2, 230 V	А	50000
Rated conditional short-circuit current, type 2, 400 V	Α	50000
Number of auxiliary contacts as normally open contact		1
Number of auxiliary contacts as normally closed contact		0
Ambient temperature, upper operating limit	°C	60
Temperature compensated overload protection		Yes
Release class		CLASS 10
Type of electrical connection of main circuit		Screw connection
Type of electrical connection for auxiliary- and control current circuit		Screw connection
Rail mounting possible		Yes
With transformer		No
Number of command positions		0

Suitable for emergency stop		No
Coordination class according to IEC 60947-4-3		Class 2
Number of indicator lights		0
External reset possible		No
With fuse		No
Degree of protection (IP)		IP00
Degree of protection (NEMA)		Other
Supporting protocol for TCP/IP		No
Supporting protocol for PROFIBUS		No
Supporting protocol for CAN		No
Supporting protocol for INTERBUS		No
Supporting protocol for ASI		No
Supporting protocol for MODBUS		No
Supporting protocol for Data-Highway		No
Supporting protocol for DeviceNet		No
Supporting protocol for SUCONET		No
Supporting protocol for LON		No
Supporting protocol for PROFINET IO		No
Supporting protocol for PROFINET CBA		No
Supporting protocol for SERCOS		No
Supporting protocol for Foundation Fieldbus		No
Supporting protocol for EtherNet/IP		No
Supporting protocol for AS-Interface Safety at Work		No
Supporting protocol for DeviceNet Safety		No
Supporting protocol for INTERBUS-Safety		No
Supporting protocol for PROFIsafe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for other bus systems		No
Width	mm	45
Height	mm	200
Depth	mm	156

# Approvals

Product Standards	UL60947-4-1A; CSA-C22.2 No. 14-10; IEC60947-4-1; CE marking
UL File No.	E123500
UL Category Control No.	NKJH
CSA File No.	12528
CSA Class No.	3211-04
North America Certification	UL listed, CSA certified
Specially designed for North America	No

### **Dimensions**



① I = 73 mm

MSC-D-...-M17[...32]BBA...

### **Assets (links)**

**Declaration of CE Conformity** 

00003118

**Instruction Leaflets** 

IL03402010Z2018\_05

## **Additional product information (links)**

IL03402010Z (AWA1210-2265) Direct-on-line starter to 32 A			
IL03402010Z (AWA1210-2265) Direct-on-line starter to 32 A	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03402010Z2018_05.pdf		
IL03402015Z (AWA1210-2324) Busbar adapter			
IL03402015Z (AWA1210-2324) Busbar adapter	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03402015Z2018_05.pdf		
Motor starters and "Special Purpose Ratings" for the North American market	http://www.eaton.eu/ecm/groups/public/@pub/@europe/@electrical/documents/content/pct_3258146.pdf		
Busbar Component Adapters for modern Industrial control panels	http://www.moeller.net/binary/ver_techpapers/ver960en.pdf		